### U.S. Department of the Interior • U.S. Geological Survey

# MINERAL INDUSTRY SURVEYS

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#### **SULFUR IN SEPTEMBER 1996**

During the month, production of combined Frasch and recovered elemental sulfur was 841,000 metric tons, according to the U.S. Geological Survey. September production was 7% lower than that of August 1996, and 5% lower than that of September 1995. Shipments of these combined products were 5% lower than those of August 1996.

Import and export data for September 1996 were not

available at the time of publication. Import/export data and apparent consumption for September 1996 will be published in the October 1996 Sulfur Mineral Industry Surveys. Imports of recovered sulfur for August 1996 were 157,000 tons. Exports of sulfur, for the same period, were 139,000 tons. Imports of sulfuric acid for August 1996 were 138,000 tons; exports were 12,000 tons.

## TABLE 1 SALIENT SULFUR STATISTICS 1/

### (Thousand metric tons)

			Shipments,		
Period	Frasch 2/	Petroleum 3/	Natural gas	Total	all sources
1995	759	5,020	4,580	10,400	10,700
JanAug. 1995	759	3,730	3,230	7,730	8,130
1995:					
September	W	425	464 4/	889	851
October	W	431	420 4/	851	842
November	W	434	459 4/	893	905
December	W	443	460 4/	903	917
1996:					
January	W	433	449 4/	882	884
February	W	406	419 4/	825	815
March	W	430	424 4/	854	835
April	W	449	423 4/	872	898
May	W	467	422 4/	889	863
June	W	416	397 4/	813	763
July	W	433	427 4/	860	832
August	W	468	432 4/	900	917
September	W	440	401 p/4/	841 p/	872 p/
Year to date	W	3,940 p/	3,790 p/	7,740 p/	7,680 p/

p/ Preliminary. W Withheld to avoid disclosing company proprietary data; included with "Natural gas."

TABLE 2 U.S. IMPORTS OF SULFUR 1/

#### (Thousand metric tons and thousand dollars)

	Cana	ada	Mex	ico	Total, all co	ountries 2/
Period	Quantity	Value 3/	Quantity	Value 3/	Quantity	Value 3/
1995	1,670	65,000	502	28,900	2,200	99,700
JanAug. 1995	1,110	43,800	342	20,000	1,460	67,800
1995:	_					
August	136	6,520	41	2,130	177	8,890
September	136	5,470	41	2,430	177	7,970
October	158	5,910	41	2,120	199	9,020
November	151	5,250	38	1,970	189	7,510
December	116	4,020	40	1,800	174	6,870
1996:						
January	96	4,780	18	781	135	7,070
February	96	4,140	37	1,910	150	7,080
March	93	2,480	37	1,720	130	4,680
April	82	2,220	37	1,990	119	4,660
May		2,400	37	1,280	171	5,520
June	85	1,500	36	1,760	122	3,780
July	111	4,610	36	1,680	148	6,700
August	- 80	1,590	57	2,510	157	4,910
Year to date	762	23,700	295	13,600	1,130	44,400

<sup>1/</sup> Data are rounded to three significant digits; may not add to totals shown.

Source: Bureau of the Census.

<sup>1/</sup> Data are rounded to three significant digits; may not add to totals shown.

<sup>2/</sup> Estimates based on information available from the Texas Comptroller of Public Account and company quarterly reports.

<sup>3/</sup> Includes a small quantity from coking operations.

<sup>4/</sup> Includes data from Frasch producers.

<sup>2/</sup> May include other countries not listed.

<sup>3/</sup> Declared customs valuation.

## $\label{eq:table 3} \textbf{U.S. IMPORTS OF SULFURIC ACID 1/}$

### (Thousand metric tons and thousand dollars)

	Canada			Europe			Total 2/		
	-	Sulfur			Sulfur			Sulfur	
Period	Quantity	content	Value 3/	Quantity	content	Value 3/	Quantity	content	Value 3
1995	1,660	544	61,500	95	30	710	1,900	619	66,500
JanAug. 1995 4/	1,120	368	42,100	75	24	481	1,290	421	44,500
1995:									
August	121	40	4,630	14	5	101	148	48	5,120
September	147	48	5,350	10	3	111	162	53	6,250
October	147	48	5,290	(5/)	(5/)	2	185	60	5,790
November	136	45	4,900	10	3	116	147	48	5,060
December	133	44	4,260				139	45	5,280
1996:									
January	112	37	3,420	9	3	113	144	47	4,120
February	110	36	2,700	11	4	232	188	62	3,550
March	144 r/	47	3,900	35	12	466	199	65	4,510
April	126	41	3,620	40	13	421	202	66	4,350
May	147	48	3,990	20	7	223	192	63	4,510
June	113	37	2,670	21	7	160	140	46	3,460
July	106	35	2,770	21	7	86	132	43	3,210
August	127	41	3,260	11	3	176	138	45	3,620
Year to date	985	322	26,300	168	56	1,880	1,340	437	31,300

r/ Revised.

Source: Bureau of the Census.

 $\label{eq:table 4} \textbf{U.S. EXPORTS OF SULFUR AND SULFURIC ACID } 1/$ 

### (Thousand metric tons and thousand dollars)

	Sulfu	r	S	Sulfuric Acid	
				Sulfur	
Period	Quantity	Value 2/	Quantity	content	Value 2/
1995	905	66,200	171	56	12,800
JanAug. 1995	681	52,800	112	36	8,340
1995:	-				
August	61	5,440	7	2	886
September	10	1,580	16	5	1,110
October	104	7,060	17	6	1,530
November	51	3,690	11	4	1,050
December	99	5,340	6	2	774
1996:					
January	102 r/	7,600 r/	13	4	1,370
February	82 r/	7,080 r/	6	2	805
March	66 r/	1,590 r/	10	3	900
April	120	6,720 r/	7	2	938
May	15 r/	2,330 r/	9	3	1,080
June	124	4,990	8	3	785
July	62	3,160 r/	9	3	978
August	139	7,280	12	4	1,090
Year to date	710	40,800	74	24	7,940

r/ Revised

Source: Bureau of the Census.

<sup>1/</sup> Data are rounded to three significant digits; may not add to totals shown.

<sup>2/</sup> May include other countries not listed.

<sup>3/</sup> Declared customs valuation.

<sup>4/</sup> May include revisions to prior months.

<sup>5/</sup> Less than 1/2 unit.

 $<sup>1/\,\</sup>mbox{Data}$  are rounded to three significant digits; may not add to totals shown.

<sup>2/</sup> Declared f.a.s. (free alongside ship) valuation.

### $\label{eq:table 5} \text{U.S. CONSUMPTION OF SULFUR 1/}$

#### (Thousand metric tons)

Period	Domestic sources 2/	Imports	Consumption
1995	9,830	2,200	12,000
JanAug. 1995	6,560	1,460	8,050
1995:	-		
August	851	177	1,030
September	841	177	1,020
October	738	199	937
November	854	189	1,040
December	818	174	992
1996:			
January	780 r/	135	915 r/
February	733 r/	150	883 r/
March	769 r/	130	899 r/
April	778	119	897
May	848 r/	171	1,020
June	639	122	761
July	770	148	918
August	778	157	935
Year to date	6,100	1,130	7,230

r/ Revised.

TABLE 6
RECOVERED SULFUR PRODUCED AND SHIPPED IN THE UNITED STATES,
BY PAD (PETROLEUM ADMINISTRATION FOR DEFENSE) DISTRICT 1/

#### (Thousand metric tons)

	September	1996 p/	August 1	996 p/	Year to dat	e 1996 p/	Year to dat	e 1995 2/
District and source	Production	Shipments	Production	Shipments	Production	Shipments	Production	Shipments
PAD 1:		-		-				
Petroleum and coke	21	20	19	20	162	170	183	183
Natural gas	4	4	5	4	38	38	38	38
Total	25	24	23	24	200	208	221	221
PAD 2:								
Petroleum and coke	81	79	82	83	680	679	672	670
Natural gas	4	5	4	4	38	38	46	46
Total	85	84	86	87	718	717	718	716
PAD 3: 3/								
Petroleum and coke	245	245	278	295	2,310	2,310	2,100	W
Natural gas 4/	305	330	335	343	2,950	2,910	3,040	W
Total	550	575 5/	614	638 5/	5,260	5,220 5/	5,140	5,610 5/
PAD 4 and 5: 6/								
Petroleum and coke	93	90	89	91	789	785	760	766
Natural gas	87	99	88	77	767	754	763	757
California	73	70	69	70	617	614	593	599
Total	180	189	177	168	1,560	1,540	1,520	1,520
Grand total	841	872	900	917	7,740	7,680	7,600	8,070

p/ Preliminary. W Withheld to avoid disclosing company proprietary data.

 $<sup>1/\,\</sup>textsc{Data}$  are rounded to three significant digits; may not add to totals shown.

<sup>2/</sup> Calculated as shipments minus exports.

 $<sup>1/\,</sup>Data$  are rounded to three significant digits; may not add to totals shown.

 $<sup>2/\,\</sup>mbox{May}$  include revisions to prior months.

<sup>3/</sup> Includes Puerto Rico and the U.S. Virgin Islands.

<sup>4/</sup> Frasch production is included in the natural gas production to avoid disclosing company proprietary data.

 $<sup>5/\,</sup>Includes$  data from Frasch producers.

<sup>6/</sup> Quantities produced and shipped in California included in petroleum and natural gas. California total shown for information purposes only.

## ${\bf TABLE~7} \\ {\bf COMPARATIVE~SULFUR~AND~SULFURIC~ACID~STATISTICS~1/} \\$

(Million metric tons per year [annualized basis] and dollars per metric ton for period shown)

		1996		1995
	September	August	Year to date	Total
Production	10.30 p/	10.60	10.30 p/	10.40
Shipments	10.60 p/	10.80	10.30 p/	10.70
Exports of sulfur	NA NA	1.64	1.07	0.91
Imports of sulfur:				
Canada	NA	0.94	1.14	1.67
Mexico	NA	0.67	0.44	0.50
Total	NA	1.85	1.70	2.20
Exports of H2SO4	NA	0.14	0.11	0.17
Imports of H2SO4:				
Canada	NA	1.50	1.43	1.66
Europe	NA NA	0.13	0.25	0.17
Total 2/	NA	1.63	2.00	1.90
Consumption: 3/				
Domestic sources	NA	9.19	8.43	9.83
Imports	NA	1.85	1.51	2.20
Total	NA	12.30	10.10	12.00
Sulfur export values 4/	NA	\$52	\$57	\$73
Sulfur import values: 4/				
Canada	NA	\$20	\$31	\$39
Mexico	NA	\$44	\$46	\$58
Average	NA	\$31	\$39	\$43
H2SO4 export values 4/	NA	\$91	\$107	\$75
H2SO4 import values: 4/				
Canada	NA	\$26	\$27	\$37
Europe	NA NA	\$16	\$11	\$7
Average	NA NA	\$26	\$23	\$35

p/ Preliminary. NA Not available.

<sup>1/</sup> Data are rounded to three significant digits; may not add to totals shown.

<sup>2/</sup> Includes other countries not listed.

<sup>3/</sup> Because trade data was not available, September consumption was not determined.

<sup>4/</sup> Average value per ton for most recent data available.